Service Manual

Audio

1994

NOKIA

IDENT-NO: 5555 1430

IDENT-NO: 5555 1420

(Young Edition)

RC 9213 CD

LUXOR

IDENT-NO: 5555 1510

RC 9213 CD

Circuit diagrams, P. C. B, spare parts list, electrical alignment.

Safety component!

⚠ This symbol identifies in the circuit diagrams all safety critical parts. Replace only with specified part numbers.

Service and repair work to be performed only in accordance with existing safety regulations!

NOKIA

CONNECTING PEOPLE

6611 90 30 (9450 MOT.)

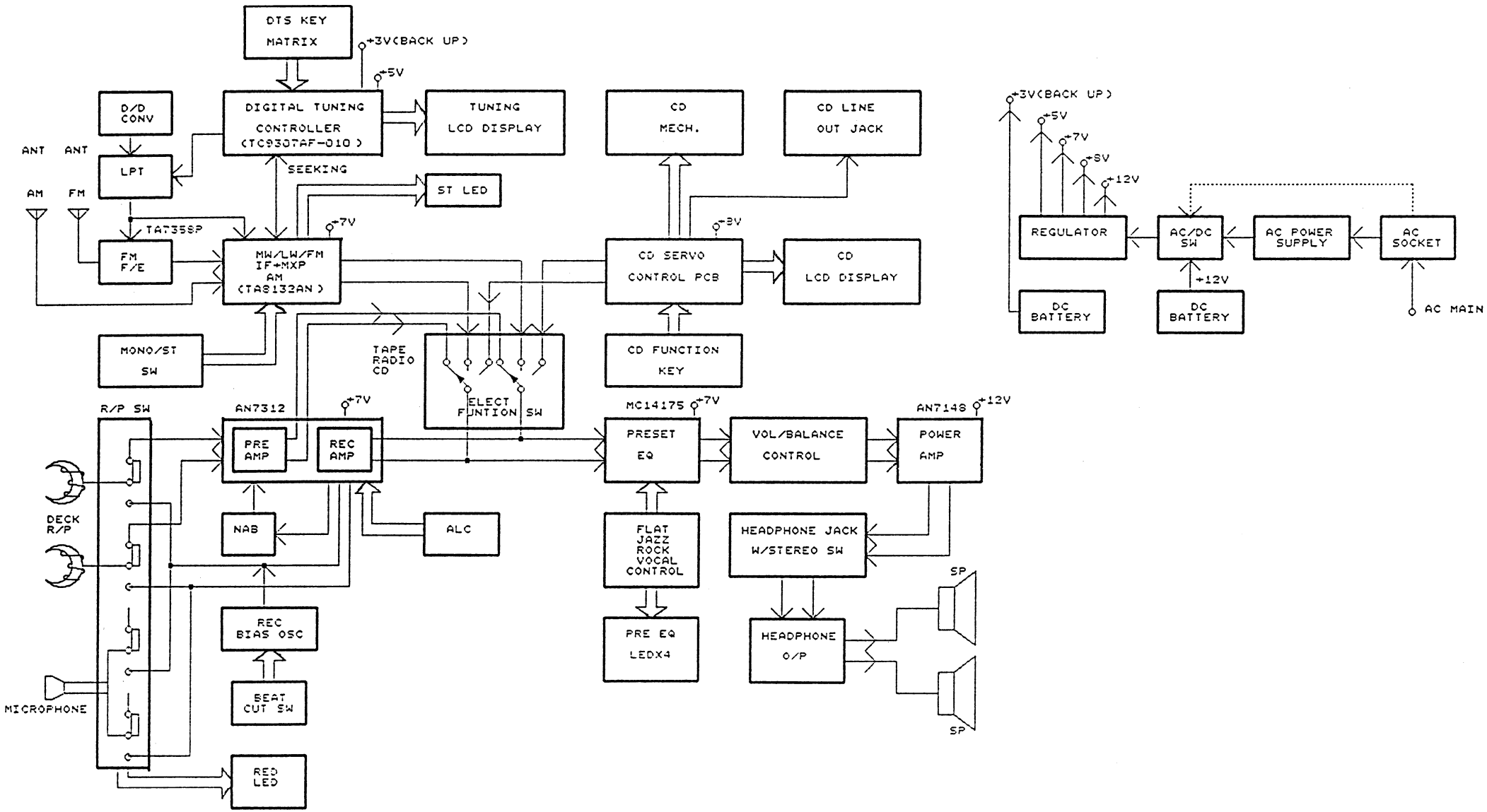
SAFETY CERTIFICATION

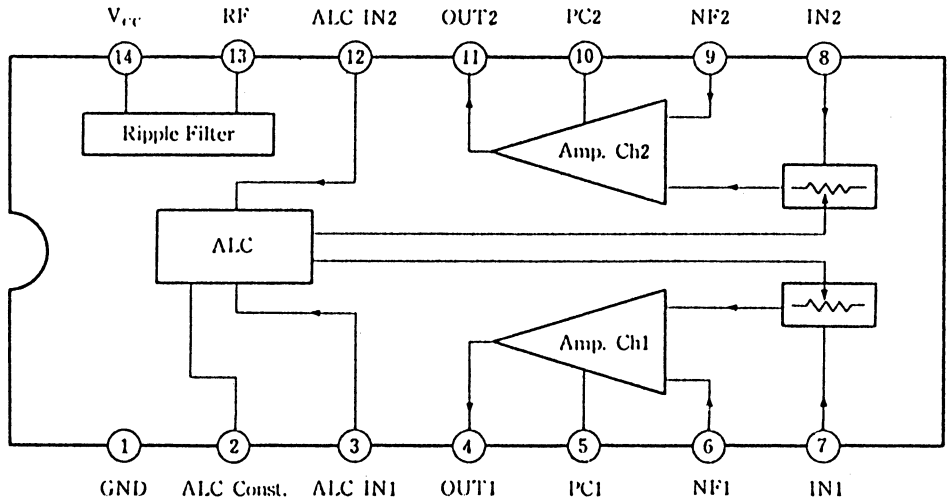
CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

CAUTION!	INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
VORSICHT!	UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBER-BRÜCKT IST. NICHT DEM STRAHL AUSSETZEN.
VARNING!	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.
ADVARSEL!	USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAF-BRYDER ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLNING.
VARO!	OVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE. LASERSÄTEILYLLE ÄLÄ KATSO SÄTEESEEN.

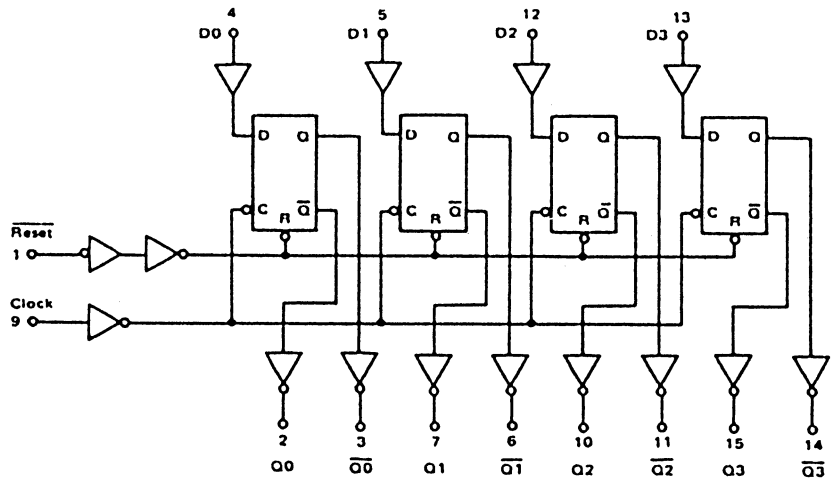
WARNING!!

After completing the servicing of this product and before returning it to the customer, measure the resistance between both prongs of the AC plug and all exposed metal parts, to be sure it exceeds 2,2 Megaohms. The unit should not be returned to the customer until the cause for the reduced power line to exposed metal parts resistance has been corrected and the unit passed the test mentioned above.

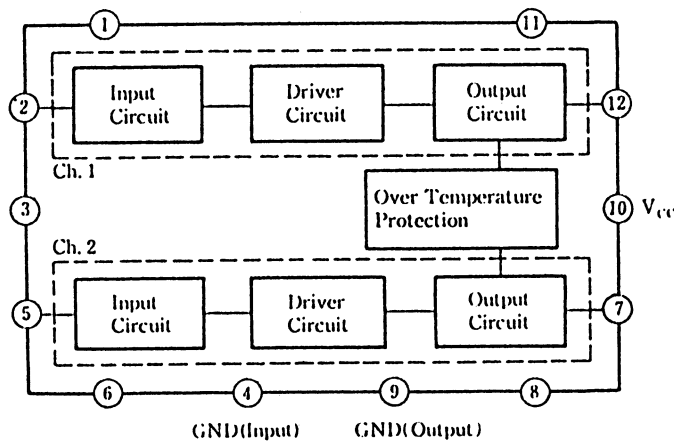

DTS KEY MATRIX
+3V(BACK UP)
+5V
D/D CONV
DIGITAL TUNING CONTROLLER (TC9307AF-010)
TUNING LCD DISPLAY
CD MECH.
CD LINE OUT JACK
ANT
ANT
LPT
SEEKING
ST LED
AM
FM
TA7358P
+7V
+3V
FM F/E
MW/LW/FM IF+MXP AM (TA8132AN)
CD SERVO CONTROL PCB
CD LCD DISPLAY
MONO/ST SW
TAPE RADIO CD
ELECT FUNTION SW
CD FUNCTION KEY
R/P SW
AN7312
+7V
MC14175
+7V
AN7148
+12V
PRE AMP
REC AMP
PRESET EQ
VOL/BALANCE CONTROL
POWER AMP
DECK R/P
NAB
ALC
FLAT JAZZ ROCK VOCAL CONTROL
HEADPHONE JACK W/STEREO SW
SP
REC BIAS OSC
PRE EQ LEDX4
HEADPHONE O/P
MICROPHONE
BEAT CUT SW
SP
RED LED
+3V(BACK UP)
+5V
+7V
+8V
+12V
REGULATOR
AC/DC SW
AC POWER SUPPLY
AC SOCKET
+12V
DC BATTERY
DC BATTERY
AC MAIN



IC101 AN7312



IC102 MC14175BCP



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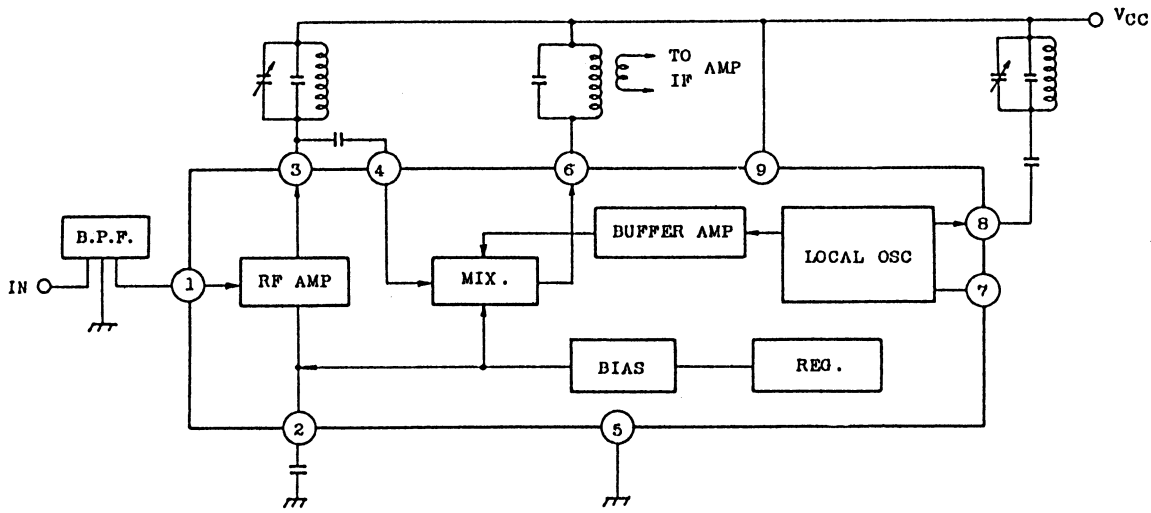
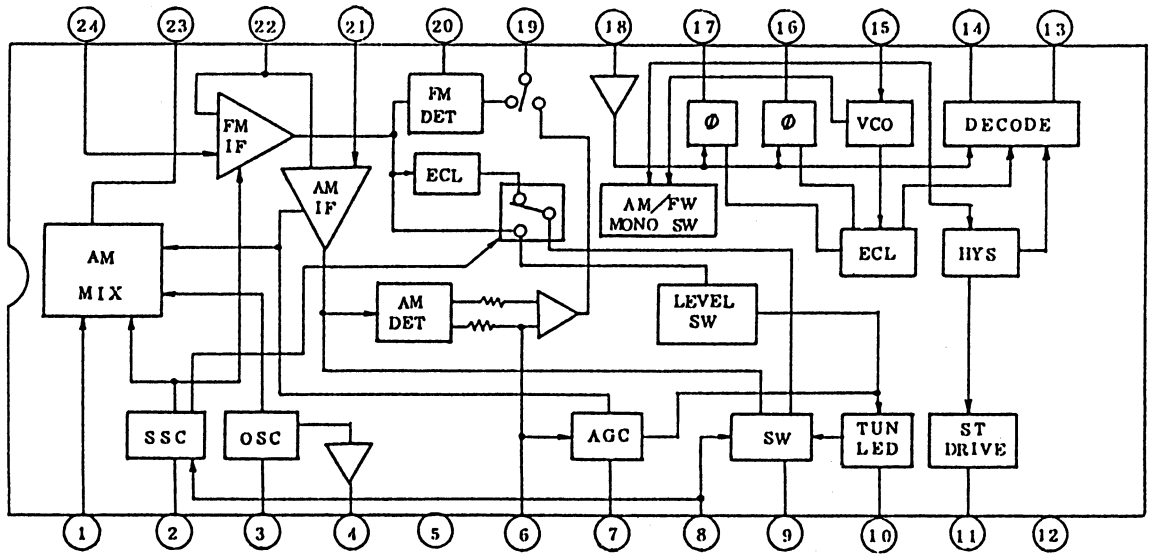


IC201 TA7358AP



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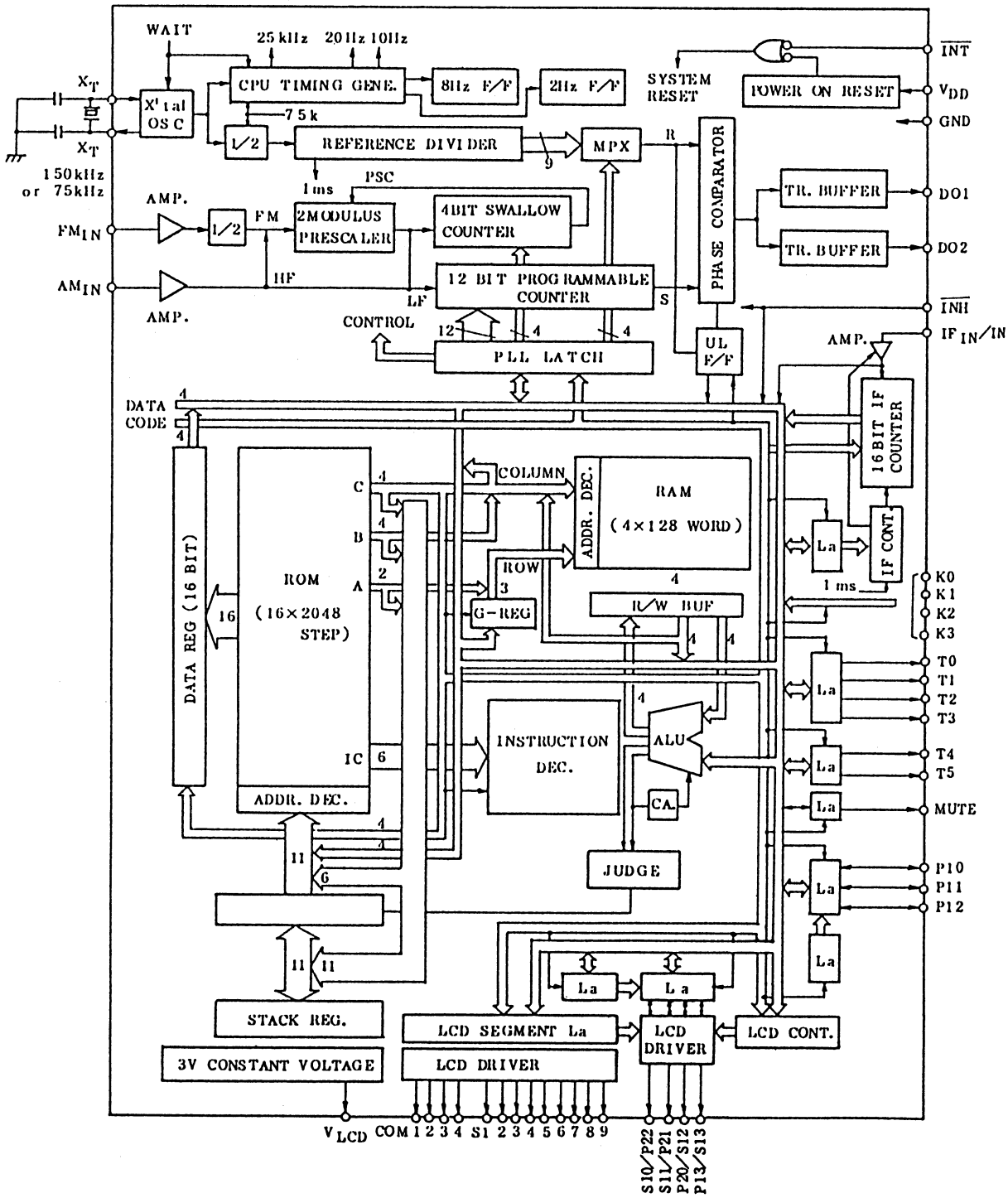
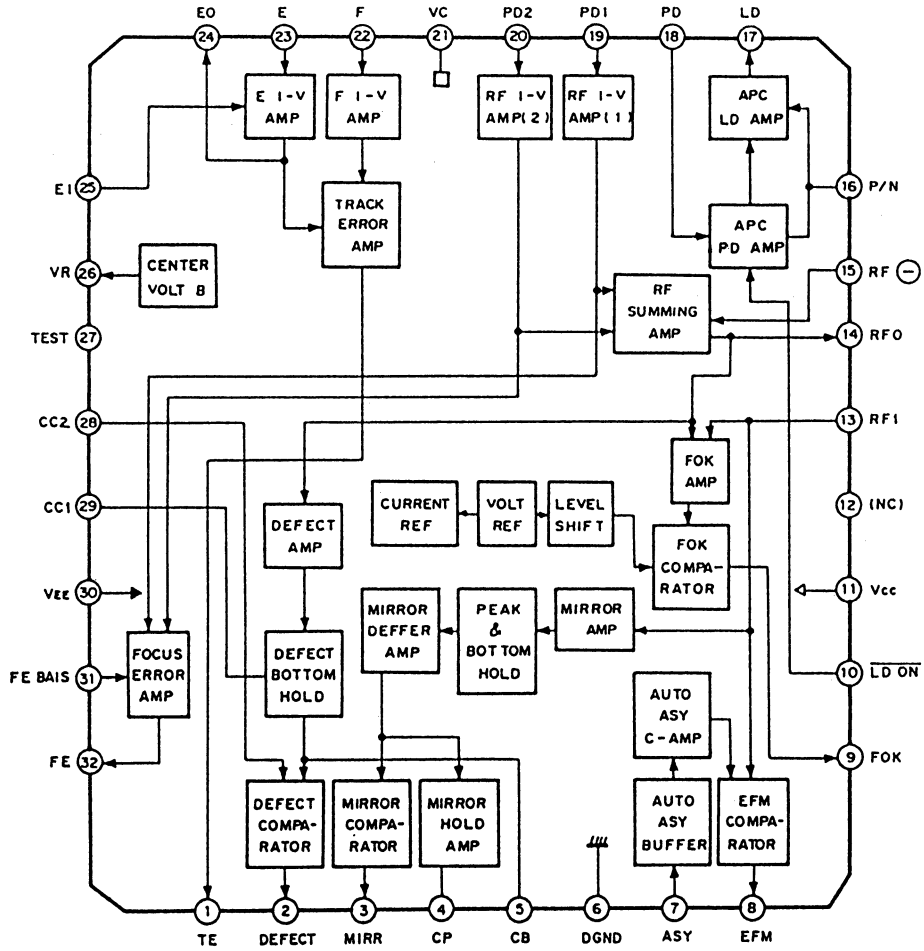


IC501 TC9307AF-010



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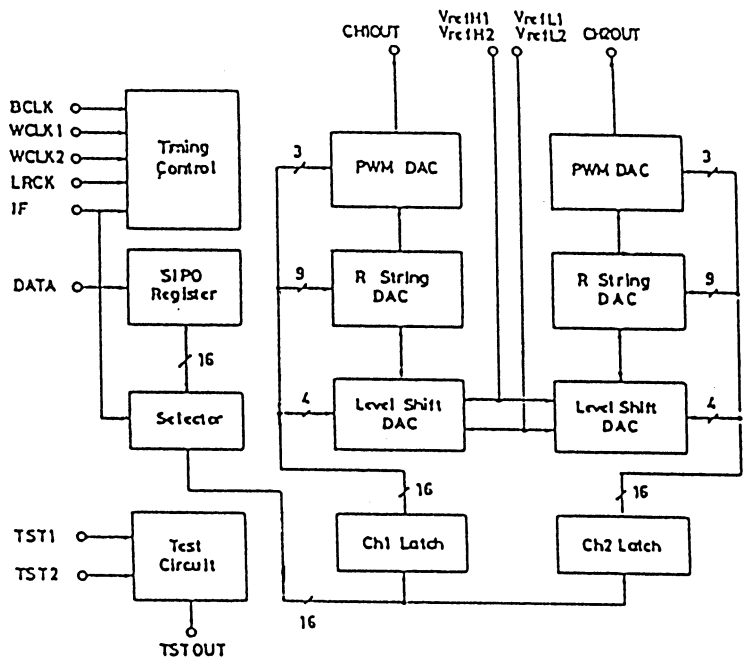

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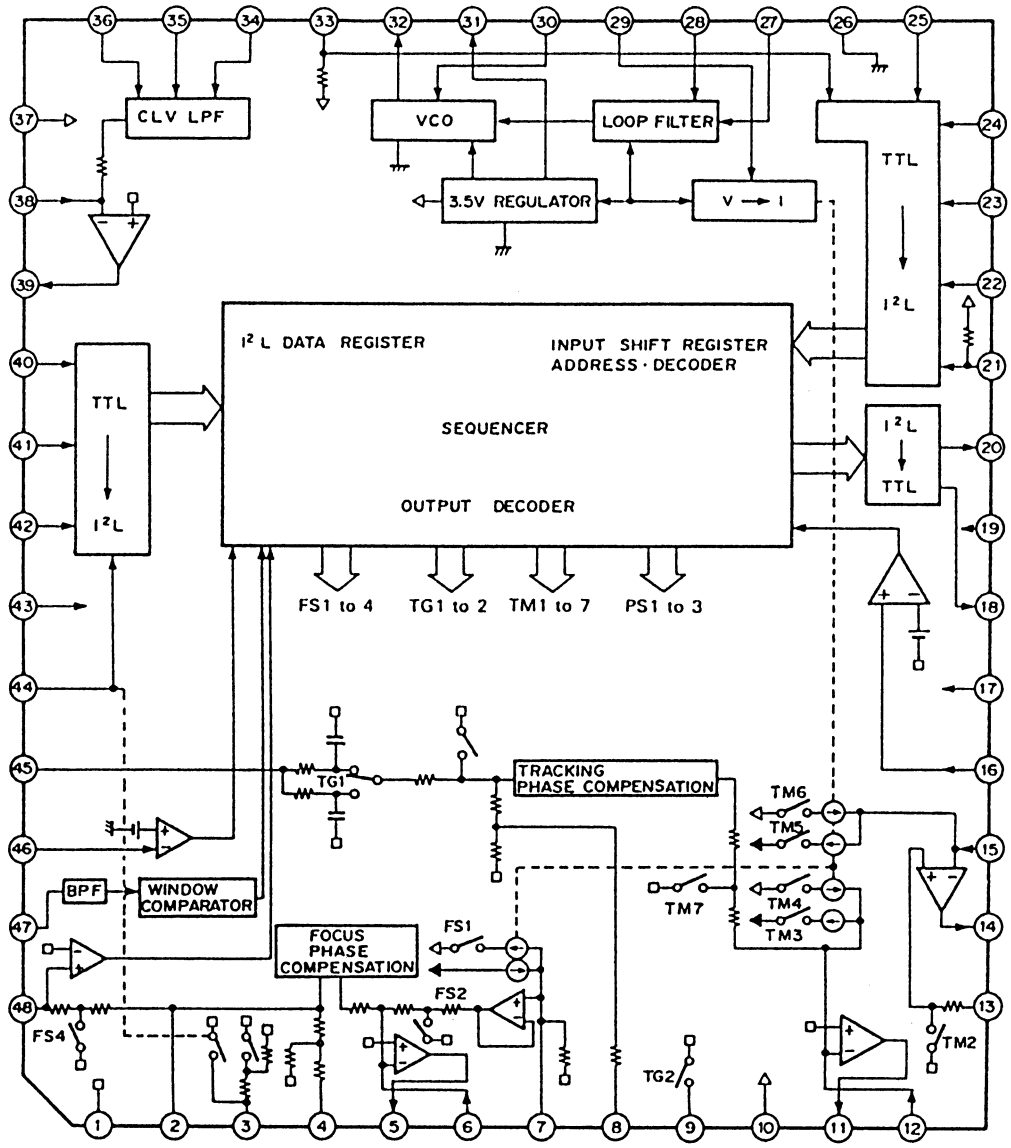

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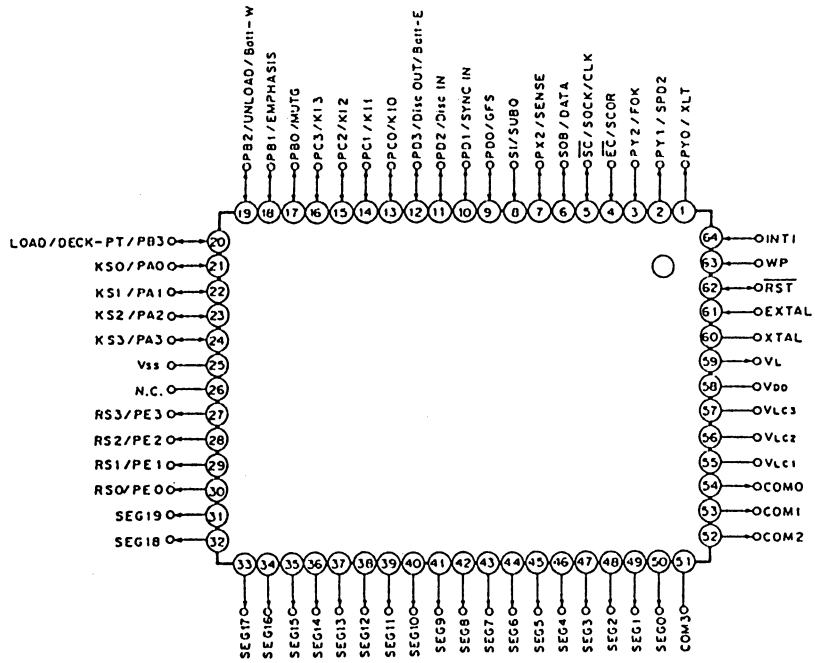

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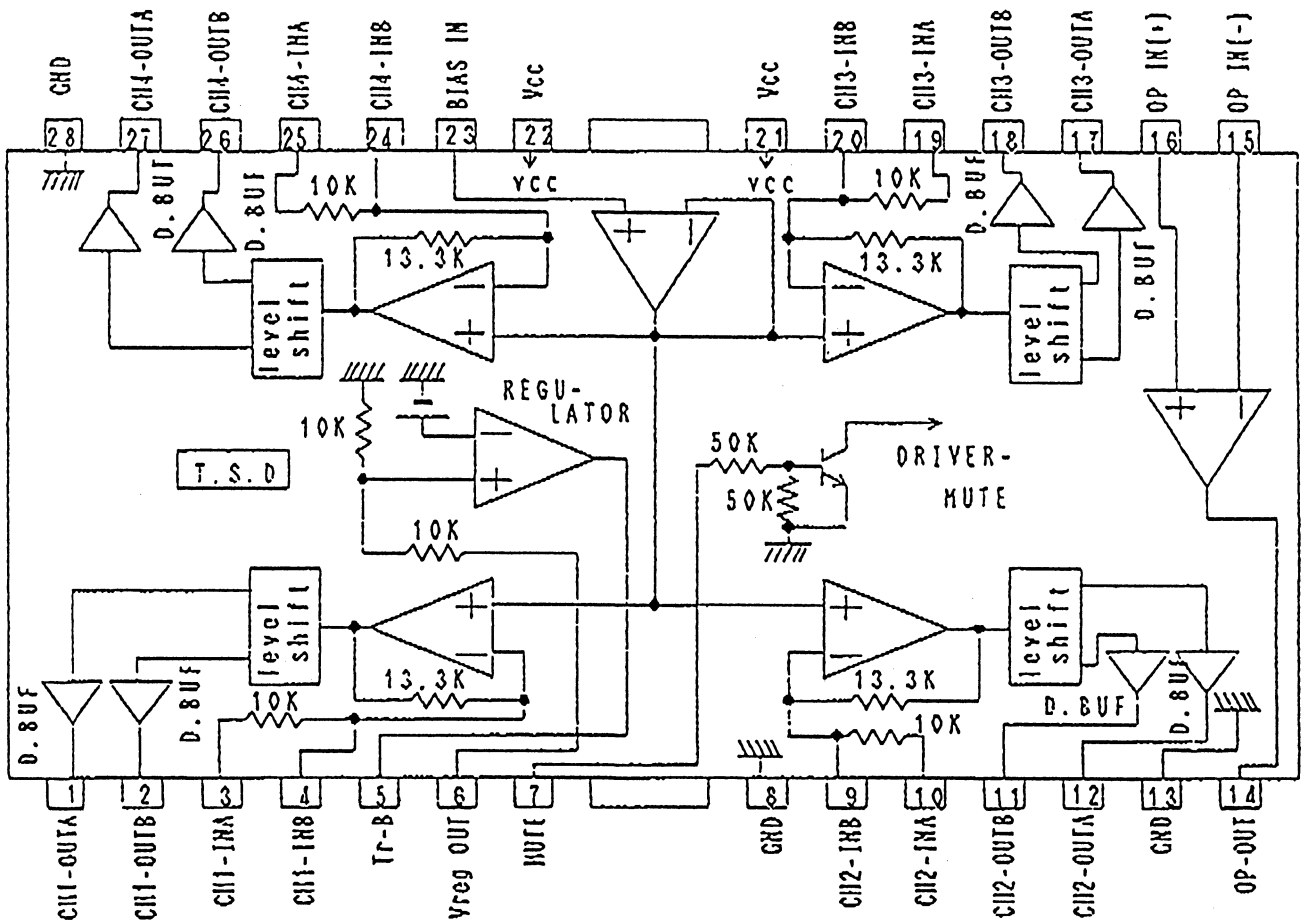

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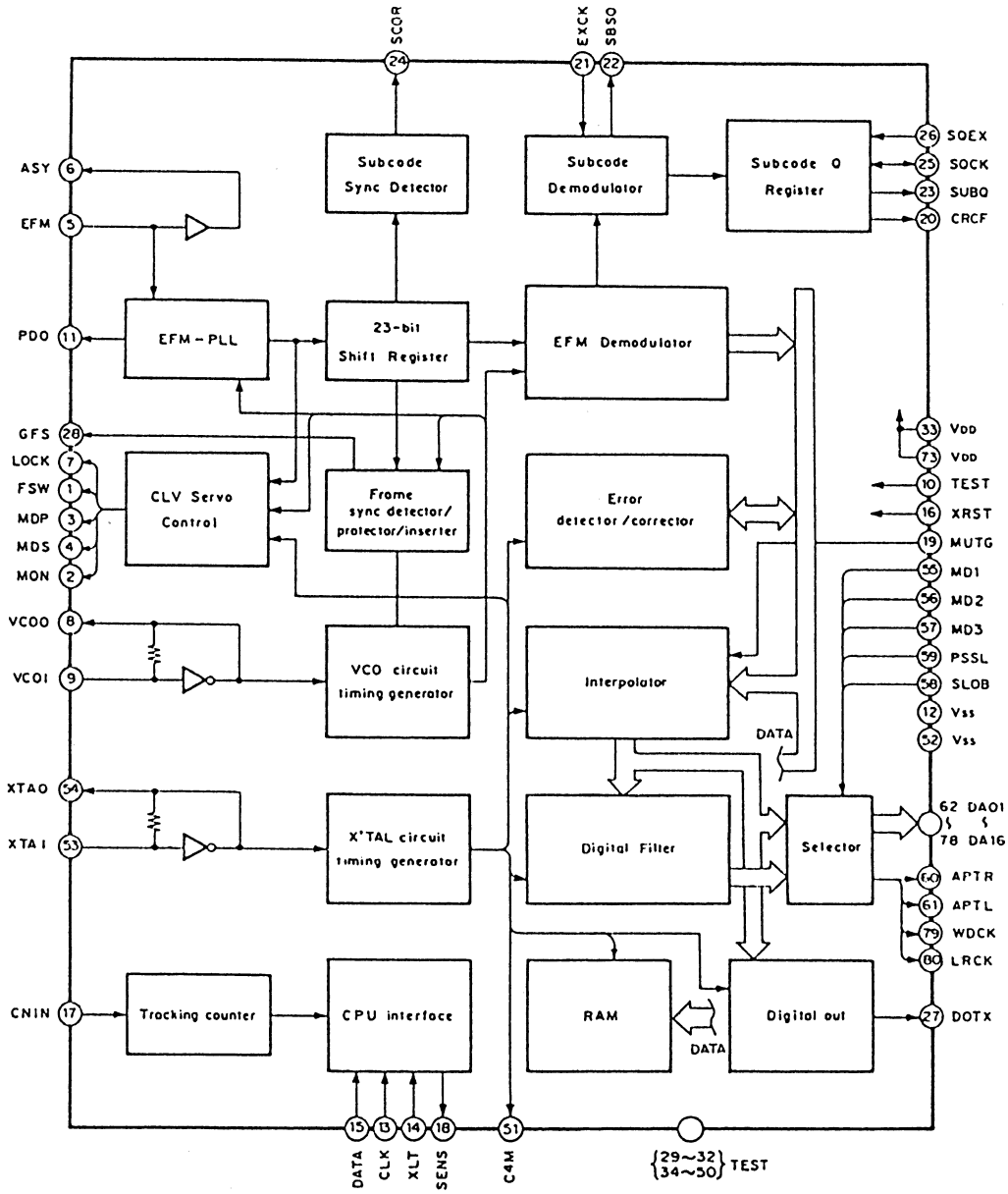

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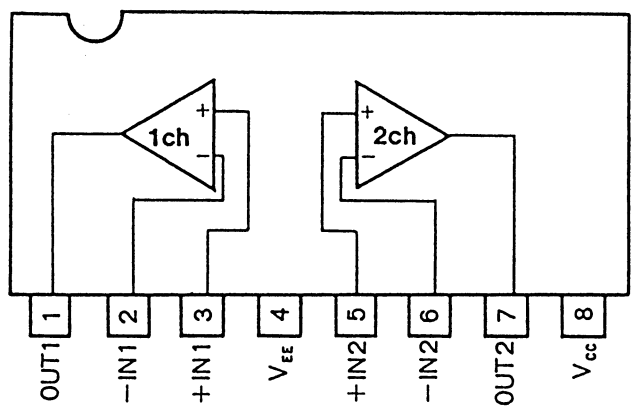

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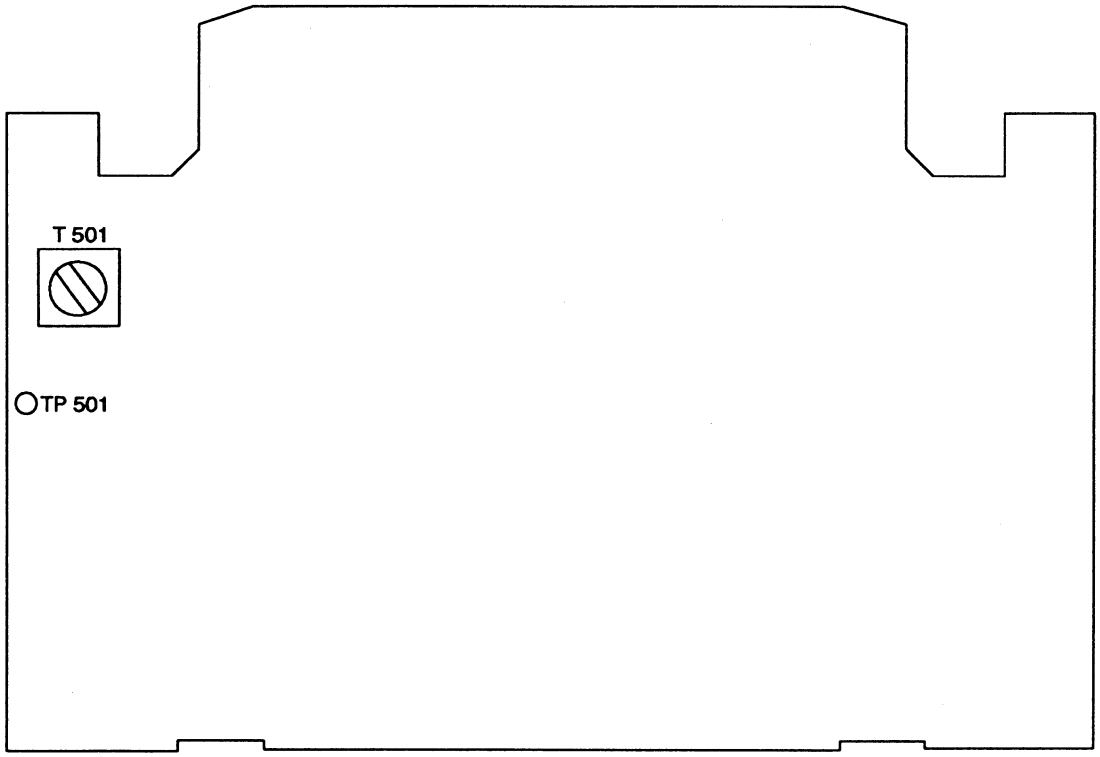
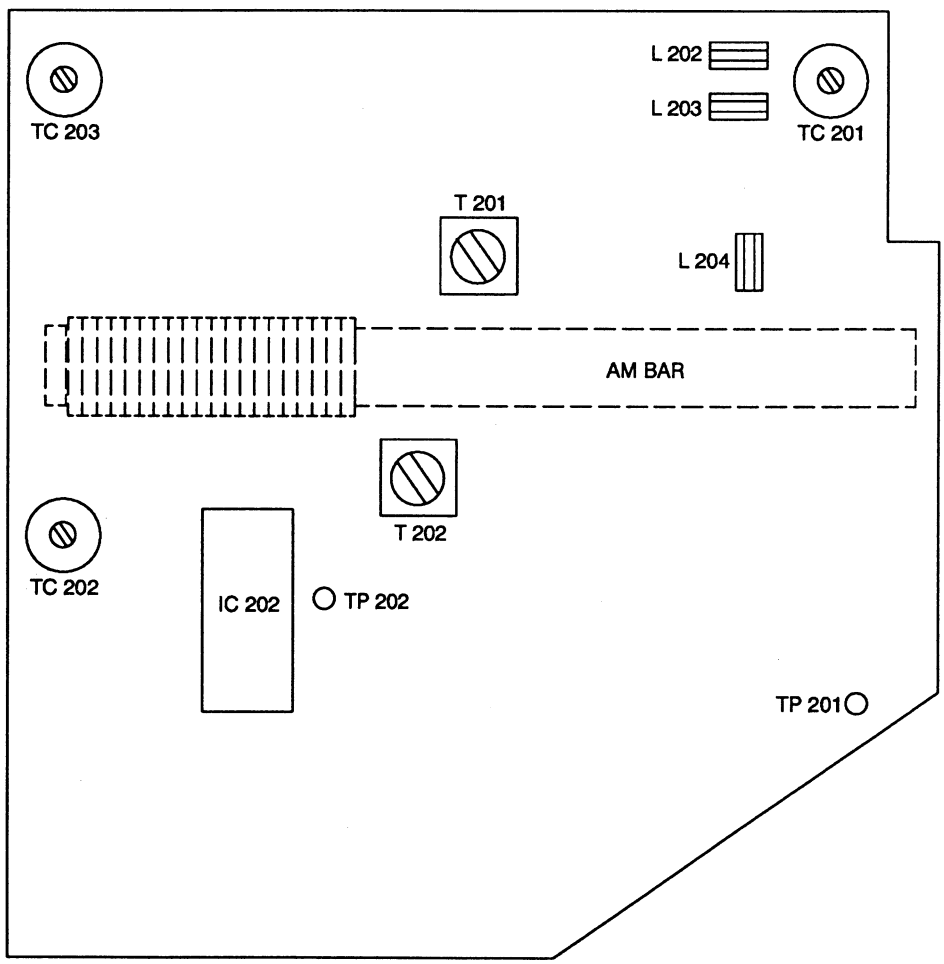
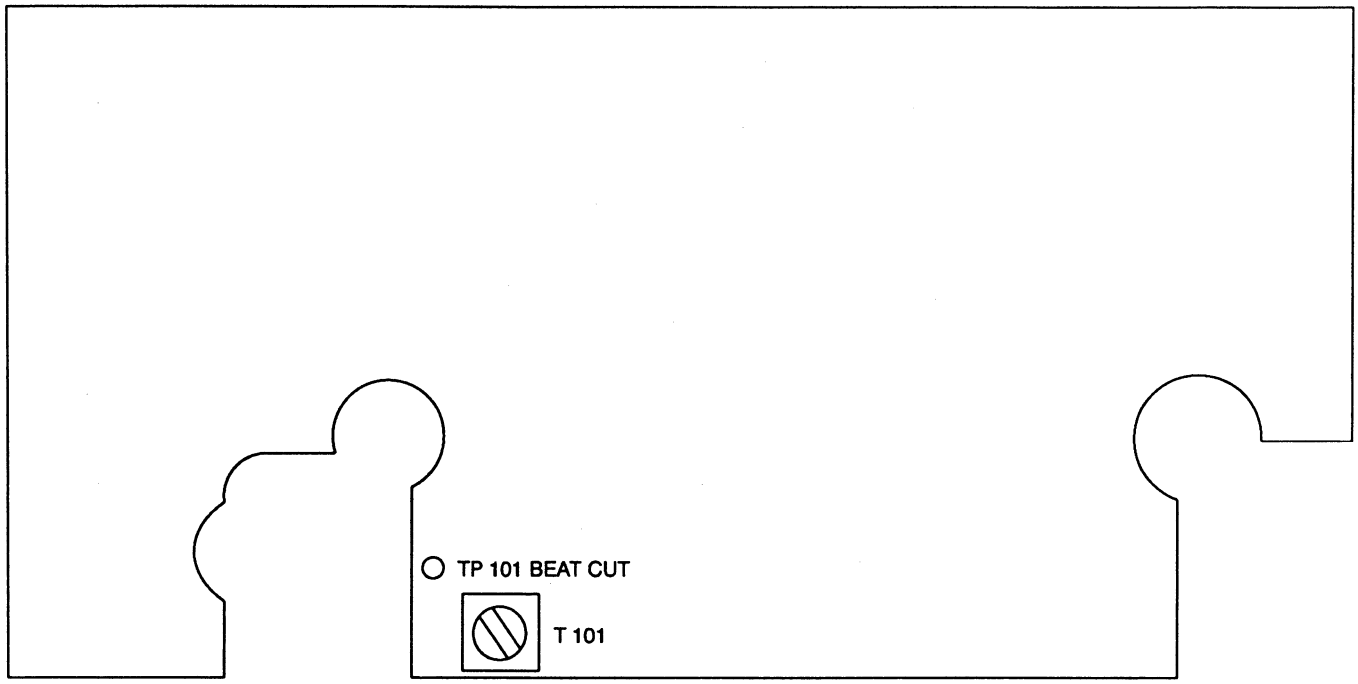
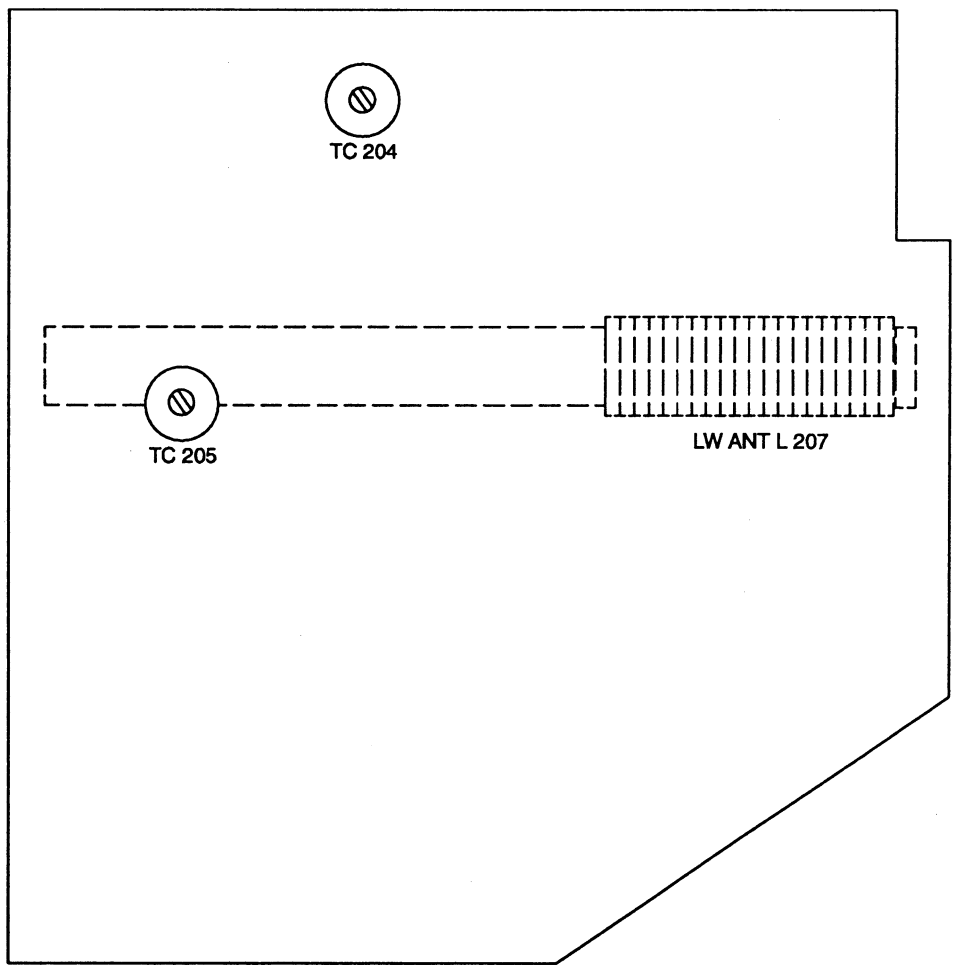

T 501
TP 501


TC 203
L 202
L 203
TC 201
T 201
L 204
AM BAR
T 202
TC 202
IC 202
TP 202
TP 201


TP 101 BEAT CUT
T 101


TC 204
TC 205
LW ANT L 207

Radio - FM Band

IC 102 - NC14175BCP

Pin	Volt.	Pin	Volt.
1	4.3	9	.01
2	5	10	.01
3	6.1	11	6.4
4	6.2	12	.01
5	6.1	13	.01
6	6.4	14	6.2
7	.01	15	.02
8	.01	16	6.4

IC 103 - AN7148

Pin	Volt.	Pin	Volt.
1	1.3	7	6.4
2	.03	8	11
3	11.8	9	
4	GND	10	12
5		11	11
6	1.3	12	6.3

IC 201 - TA7358AP

Pin	Volt.	Pin	Volt.
1	.82	6	3.9
2	1.55	7	3.25
3	3.95	8	3.85
4	1.5	9	4.0
5	0.0		

IC 202 - TA8132AN

Pin	Volt.	Pin	Volt.	Pin	Volt.
1	4.5	9	4.54	17	4.4
2	4.4	10	.02	18	.68
3	4.5	11	.04	19	2.1
4	4.5	12	.01	20	3.5
5	4.5	13	.81	21	4.35
6	3.45	14	.8	21	4.4
7	.76	15	3.8	23	4.4
8	.02	16	3.4	24	4.5

IC 501 - TC9307AF-010

Pin	Volt.	Pin	Volt.	Pin	Volt.	Pin	Volt.
1	.04	12	3	23	2.9	34	NC
2	.04	13	3	24	2.9	35	4.7
3	.05	14	3.1	25	2.9	36	2.1
4	.05	15	2.9	26	3	37	0
5	4.8	16	3.3	27	.06	38	.06
6	4.8	17	4.7	28	.06	39	4.75
7	4.8	18	3	29	.06	40	2
8	4.8	19	3.2	30	.06	41	.7
9	1.8	20	3.2	31	.06	42	4.7
10	3	21	3.3	32	2.2	43	.05
11	3	22	2.1	33	1	44	.05

	Q301	Q302	Q303	Q304	Q305	Q306	Q307	Q308
B (V)	.01	6.8	0	0	7.6	5	11.3	9
C (V)	6.8	0	.02	.02	11.8	5.5	11.8	12
E (V)	GND	6.9	.01	.01	6.95	5.7	12	9.6

	Q501	Q502	Q503	Q504	Q109	Q112	Q210
B (V)	.8	.5	.9	.8	1.7	3.5	.02
C (V)	4.1	3.65	3.65	2.8	3.7	1.4	.6
E (V)	.17	.01	.5	.08	.7	.84	GND

Tape - PLAY

IC 101 - AN7312

Pin	Volt.	Pin	Volt.
1	0	8	.13
2	.02	9	1.3
3		10	3
4	3	11	
5	1.4	12	
6	1.3	13	5.9
7	.13	14	6

	Q101	Q102	Q103	Q104	Q105
B (V)	.8	.6	.02	1.4	.01
C (V)	.02	.01	6.2	3.4	.07
E (V)	.01	.01	0	.83	.06

	Q106	Q107	Q108	Q110	Q111
B (V)	.8	0	.01	1.2	.01
C (V)	.83	6.9	1.4	4.2	1.2
E (V)	.06	0	0	.63	0

Tape - REC

	Q103	Q105	Q106	Q107	Q108	Q111
B (V)	.72	6.7	0	1.3	.68	.68
C (V)	.05	6.95	6.7	3.2	.02	.01
E (V)	0	6.9	6.5	.74	0	0

CD - Pause

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
B (V)	3.4	7.55	3.95	4.95	8.2	8.2	0	0
C (V)	1.8	5	8.2	3.95	3.95	3.95	2	2
E (V)	4	8.2	8.2	3.95	3.95	3.95	3.95	3.95

IC 1 - CXA1081Q

Pin	Volt.	Pin	Volt.	Pin	Volt.	Pin	Volt.
1	2.65	9	.15	17	3.5	25	2.5
2	.24	10	.11	18	.22	26	2.58
3	.3	11	5.14	19	2.58	27	2.55
4	3	12	0	20	2.58	28	1.46
5	1.98	13	2.54	21	2.58	29	3.45
6	.13	14	2.6	22	2.58	30	.7
7	2.75	15	2.6	23	2.58	31	2.6
8	2.3	16	4.2	24	2.5	32	2.7

IC 2 - CXA1082BQ

Pin	Volt.	Pin	Volt.	Pin	Volt.	Pin	Volt.
1	2.52	13	2.5	25	5	37	5
2	2.43	14	2.5	26	0	38	2.5
3	1.57	15	2.45	27	2.5	39	3
4	2.2	16	0	28	2.5	40	2.5
5	2.5	17	.78	29	2.2	41	5
6	2.5	18	4.3	30	2.3	42	0
7	2.6	19	0	31	3.5	43	0
8	2.38	20	0	32	2.2	44	0
9	1.7	21	4.85	33	2.3	45	2.5
10	5	22	4.6	34	2.8	46	2.3
11	2.5	23	4.9	35	5	47	1.8
12	2.5	24	5	36	2.7	48	2.5

IC 3 - CXP1011Q

Pin	Volt.	Pin	Volt.	Pin	Volt.	Pin	Volt.
1	5	17	4.95	33	2.58	49	2.58
2	5	18	0	34	2.58	50	2.58
3	4.98	19	5	35	2.58	51	2.58
4	.05	20	0	36	2.58	52	2.58
5	5	21	5	37	2.58	53	2.58
6	4.95	22	.06	38	2.58	54	2.58
7	4.3	23	5	39	2.58	55	3.3
8	.5	24	5	40	2.58	56	1.7
9	4.8	25	0	41	2.58	57	.08
10	5	26	5	42	2.58	58	5
11		27	5	43	2.58	59	.01
12	5	28	5	44	2.58	60	1.96
13	5	29	5	45	2.58	61	2.5
14	5	30	5	46	2.58	62	4.5
15	5	31	2.5	47	2.58	63	0
16	5	32	2.58	48	2.58	64	0

IC 4 - BA6296FP

Pin	Volt.	Pin	Volt.	Pin	Volt.	Pin	Volt.
1	4	8	0	15	2.8	22	8.2
2	3.65	9	2.5	16	2.5	23	2.5
3	2.3	10	3	17	3.8	24	2.5
4	2.5	11	4.3	18	3.9	25	2.5
5	7.5	12	3.4	19	2.57	26	3.8
6	5	13	0	20	2.5	27	4
7	5	14	1.2	21	8	28	0

IC 6 - CXD1167Q

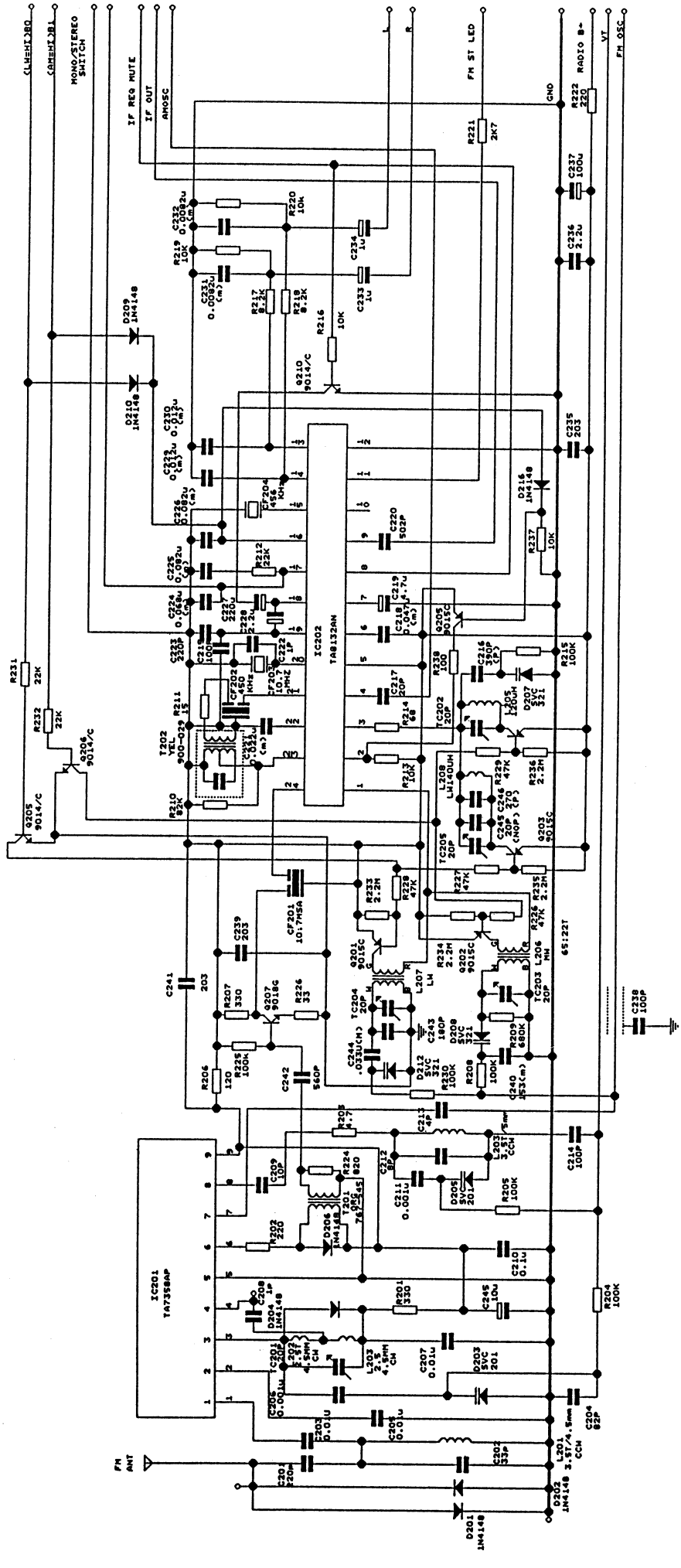
Pin	Volt.	Pin	Volt.	Pin	Volt.	Pin	Volt.
1	.04	21	0	41	0	61	1.2
2	5	22	0	42	0	62	.2
3	2.45	23	.5	43	0	63	.2
4	2.8	24	.05	44	0	64	1
5	2.5	25	5	45	0	65	.5
6	2.4	26	5	46	0	66	.3
7	5	27	2	47	0	67	.2
8	2.4	28	4.8	48	0	68	2.5
9	2.4	29	0	49	0	69	2.5
10	0	30	0	50	0	70	2.5
11	2.6	31	0	51	2.5	71	5
12		32	5	52	0	72	.01
13	5	33	0	53	1.7	73	5
14	5	34	0	54	2.2	74	5
15	5	35	0	55	0	75	2.45
16	4.5	36	0	56	0	76	2.5
17	.08	37	0	57	0	77	2.5
18	.08	38	0	58	0	78	.1
19	4.9	39	0	59	0	79	2.5
20	0	40	0	60	1.2	80	2.5

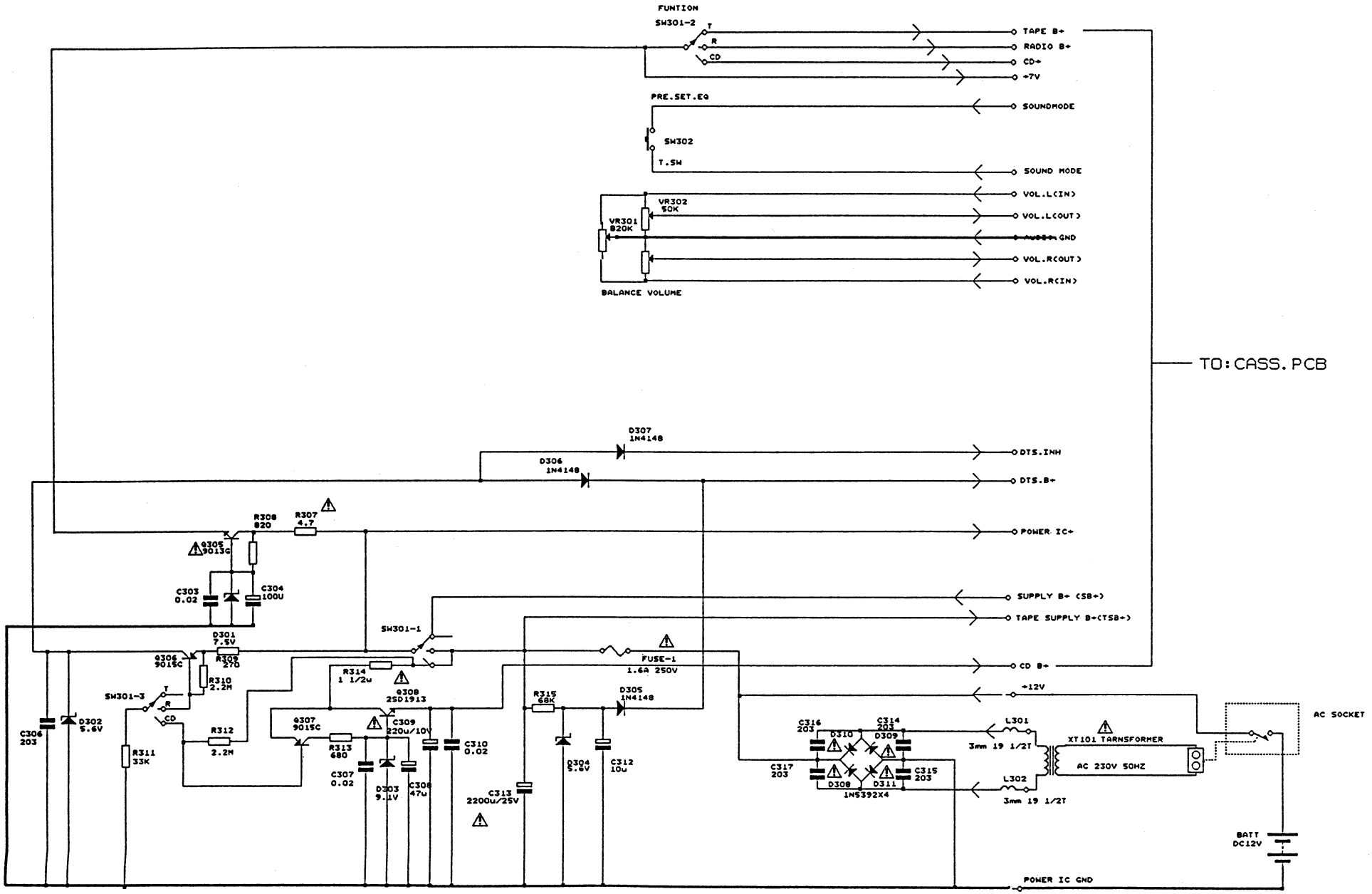
IC 7 - BA4558N

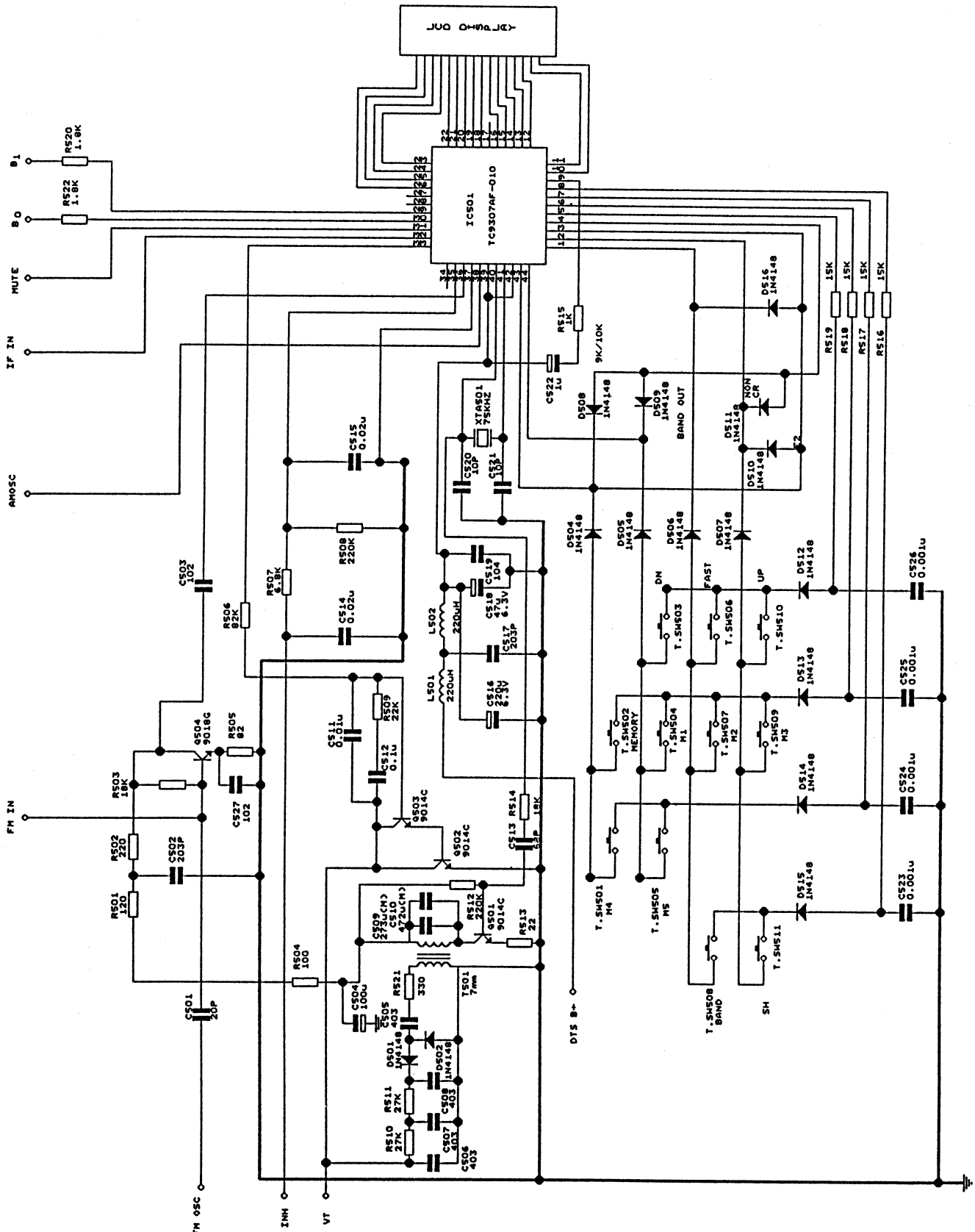
Pin	Volt.	Pin	Volt.
1	5.6	5	3.9
2	5.2	6	5.2
3	3.9	7	5.6
4	3.9	8	8

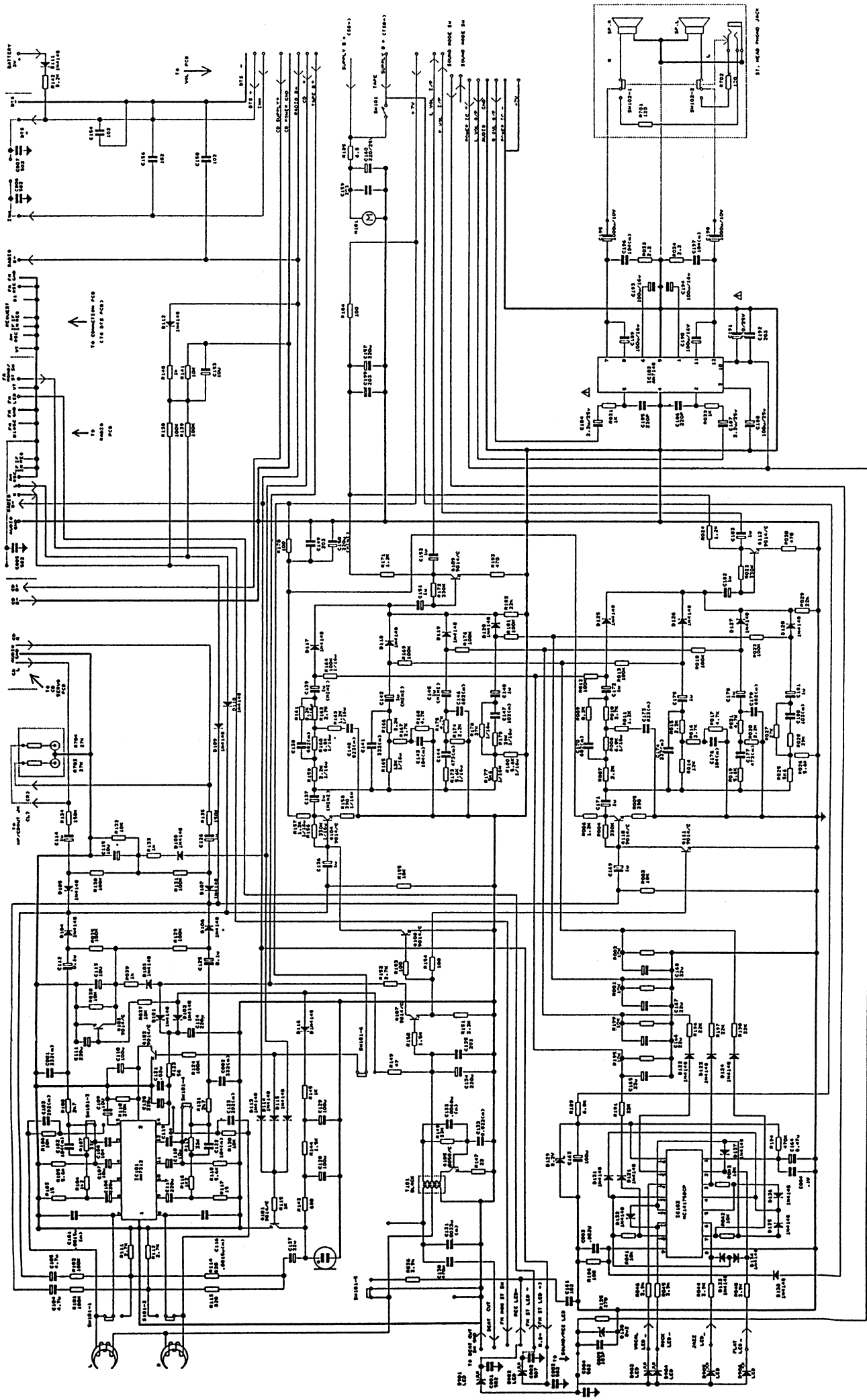
IC 8 - LC7881M

Pin	Volt.	Pin	Volt.	Pin	Volt.	Pin	Volt.
1	3.9	6	2.5	11	3.55	16	4.25
2	4.6	7	2.5	12	3.9	17	3.9
3	5	8	0	13	3.9	18	3.9
4	4.9	9	2.5	14	4.9	19	0
5	3.9	10	4.95	15	3.9	20	3.9


CLWEHZ280
CAMEHZ281
MONO/STEREO SWITCH
IF REG MUTE
IF OUT
AMOSC
FM ST LED
GND
RADIO B+
VT
FM OSC
IC202 TA8132AN
IC201 TA7358AP
FM ANT
D201 1N4148
D202 1N4148
L201 3.5T/4.5mm CCW
L202 4.5mm CW
L203 4.5mm CW
L204 MW
L205 120UH
L206 LW
L207 LW
L208 LW140UH
CF201 10.7MSA
CF202 450 KHz
CF203 10.7 2MHz
CF204 456 KHz
T201 7x7x15
T202 YEL 900-029
T203 3.5T CCW
65122T


FUNTION
SW301-2
T
R
CD
TAPE B+
RADIO B+
CD+
+7V
PRE.SET.EQ
SOUNDMODE
SW302
T.SW
SOUND MODE
VOL.L(IN)
VOL.L(OUT)
GND
VOL.R(OUT)
VOL.R(IN)
VR302
50K
VR301
B20K
BALANCE VOLUME
TO:CASS. PCB
D307
1N4148
D306
1N4148
DTS.INH
DTS.B+
POWER IC+
R308
820
R307
4.7
Q305
9013C
C303
0.02
C304
100U
SUPPLY B+ (SB+)
TAPE SUPPLY B+(TSB+)
SW301-1
D301
7.5V
Q306
9015C
R309
270
R310
2.2M
SW301-3
T
R
CD
R311
33K
R312
2.2M
R314
1 1/2w
FUSE-1
1.6A 250V
CD B+
+12V
Q308
2SD1913
Q307
9015C
C309
220u/10V
R313
680
C307
0.02
D303
9.1V
C308
47u
C310
0.02
R315
68K
D305
1N4148
C313
2200u/25V
D304
5.6V
C312
10u
C306
203
D302
5.6V
C316
203
C314
203
D310
D309
C317
203
C315
203
D308
D311
1N5392X4
L301
3mm 19 1/2T
L302
3mm 19 1/2T
XT101 TARNSFORMER
AC 230V 50HZ
AC SOCKET
BATT
DC12V
POWER IC GND


IC501
TC9307AF-010
FM IN
AMOSC
IF IN
MUTE
BO
B1
FM OSC
INH
VT
DTS B+
BAND OUT
DN
UP
FAST
SH
T.SW501
T.SW502
T.SW503
T.SW504
T.SW505
T.SW506
T.SW507
T.SW508
T.SW509
T.SW510
T.SW511
M1
M2
M3
M4
M5
MEMORY
BAND
XTAL501
75KHZ
L501
220uH
L502
220uH
TS01
7mm



Spare Parts List

Components marked with YE are specific for "Young Edition" sets.

Pos.		Code	Description
P1		6466 0252	PLL DISPLAY LENS
P1	YE	6466 0255	PLL DISPLAY LENS
P2		6134 5407	CASS.DOOR
P2	YE	6134 5409	CASS.DOOR
P3		6328 0464	PLL PRESET BUTTON
P3	YE	6328 0465	PLL PRESET BUTTON
P5		8318 6136	CASS.DOOR BRACKET
P5	YE	8318 6139	CASS.DOOR BRACKET
P7		7358 4902	CASS.DOOR SPRING
P8		6418 3484	SPEAKER GRILL
P8	YE	6418 3486	SPEAKER GRILL
P10		6131 9081	FRONT CABINET
P10	YE	6131 9082	FRONT CABINET
P11		6466 0251	CD DISPLAY LENS
P11	YE	6466 0254	CD DISPLAY LENS
P13		6328 0458	CD KEY
P13	YE	6328 0467	CD KEY
P15		6328 0459	CD KEY
P15	YE	6328 0468	CD KEY
P17		8681 5388	DAMPING GEAR
P19		4311 9584	PIEZO SP.20 W/O FB
P20		8681 5389	DAMPING GEAR HOLDER
P22		4311 9585	4Z 4 OHM 4W/BLK CAP
P26		6328 0462	DECK KEY ASSY
P26	YE	6328 0471	DECK KEY ASSY
P27		5863 1084	DECK GM 20ZSB–A56P
P27	YE	5863 1085	DECK CDS–83FB–23SH
P35		6135 5212	REAR CABINET
P35	YE	6135 5213	REAR CABINET
P37		7358 4905	RC510 BATTERY CONTAC
P38		7358 4907	BATTERY CONTACT '+'
P39		7358 4909	BATTERY CONTACT '+/–'
P40		7358 4906	BATTERY CONTACT (–)
P41		7358 4910	BATTERY CONTACT '–'
P42		7358 4908	BATTERY CONTACT '+'
P43		6134 5405	BATTERY DOOR
P43	YE	6134 5406	BATTERY DOOR
P44		6341 5002	HANDLE COVER
P44	YE	6341 5004	HANDLE COVER
P45		6341 4999	HANDLE
P45	YE	6341 5003	HANDLE
P46		4471 9071	ROD ANTENNA 52193E
P47		6328 0461	CD DOOR OPEN BUTTON
P47	YE	6328 0470	CD DOOR OPEN BUTTON
P48		6328 0453	BALANCE KNOB
P48	YE	6328 0455	BALANCE KNOB
P49		6328 0452	VOLUME KNOB
P49	YE	6328 0454	VOLUME KNOB
P51		6328 0456	FUNCTION SELECTOR
P51	YE	6328 0457	FUNCTION SELECTOR
P52		6328 0460	MUSIC MODE BUTTON
P52	YE	6328 0469	MUSIC MODE BUTTON
P53		6134 5408	CD DOOR
P53	YE	6134 5410	CD DOOR
P54		8318 6137	CD HOUSING
P54	YE	8318 6141	CD HOUSING
P55		8318 6144	FUNCTION PCB HOLDER
P56		7358 4904	CD DOOR SPRING
P58		6418 3483	SPEAKER GRILLE
P58	YE	6418 3485	SPEAKER GRILLE
P65		4131 4342	AC SOCKET 'VDE' HSC0
P66		8681 5387	AC SOCKET COVER
P69		6328 0463	CD KEY
P69	YE	6328 0466	CD KEY
P72		3771 6974	IC AN7148 MATSUSHITA
P74		8318 6145	CD DOOR HOOK
P75		7358 4903	CD BUTTON SPRING
P76		8318 6134	LEAF SWITCH BRACKET
P77		4112 7598	LEAF SW 1P1T LSA–111
P81		8681 5386	MAGNET COVER UR–4009
P82		6466 0253	CD DOOR LENS
P82	YE	6466 0256	CD DOOR LENS
P83		8318 6135	DISC HOLDER BRACKET
P83	YE	8318 6140	DISC HOLDER BRACKET
P85		8318 6149	STABILIZER UR40829
P87		8681 5385	NSX1 PU COVER 89–048
P90		8318 6143	NSX1 PU COVER HOLDER
P92		4335 9490	CD PICK–UP CDK90VIHC
P94		8318 6146	CD DISPLAY HOLDER
P94	YE	8318 6148	CD DISPLAY HOLDER
P95		7358 4901	CD SPRING 1 (UR40837)
P96		8318 6138	CD HOLDER BRACKET
P96	YE	8318 6142	CD HOLDER BRACKET
P99		8681 5390	MAGNET
CF201		4552 6880	CER FILTER SK107M1–A
CF202		4552 6881	CER FILTER SFU450B
CF203		4552 6879	DISCRIMINATOR FCD107
CF204		4552 6882	CER RES.CSB456F18
D101–28		3656 0818	1N 4148
D129		3656 3754	ZENER 8.2V 0.5
D130		3656 3754	ZENER 8.2V 0.5
D131–38		3656 0818	1N 4148
D201		3656 0818	1N 4148
D202		3656 0818	1N 4148
D203		3656 3668	SVC 201 SPA
D204		3656 0818	1N 4148
D205		3656 3668	SVC 201 SPA
D206		3656 0818	1N 4148
D207		3656 3751	TUN SVC321 SPA
D208		3656 3751	TUN SVC321 SPA
D209		3656 0818	1N 4148
D210		3656 0818	1N 4148
D211		3656 0818	1N 4148
D212		3656 3751	TUN SVC 321 SPA–C–2
D301		3656 3753	ZENER 7.5V 0.5
D302		3656 3752	ZENER 5.6V 0.5
D303		3656 3755	ZENER 9.1V 0.5
D304		3656 3752	ZENER 5.6V 0.5
D305		3656 0818	1N 4148
D306		3656 0818	1N 4148
D307		3656 0818	1N 4148
D308		3656 3686	1N 5392

D309	3656 3686	1N 5392
D310	3656 3686	1N 5392
D311	3656 3686	1N 5392
D501	3656 0818	1N 4148
D502	3656 0818	1N 4148
D504–16	3656 0818	1N 4148
D901–06	3681 1874	LED 2MM RED (L–1034H)
IC101	3771 4911	AN 7312
IC102	3771 6976	MC14175BCP MOTORO
IC103	3771 6974	AN7148 MATSUSHITA
IC201	3771 6904	TA 7358AP
IC202	3771 6975	TA8132AN TOSHIBA
IC501	3771 6906	TC9307AF–010
L101	4543 4103	FERRITE COIL 4T(3.5X
L102	4543 4103	FERRITE COIL 4T(3.5X
L201	4543 4111	FM COIL 4.5MM X 31/2
L202	4543 4110	FM COIL 4.5MM X 21/2
L203	4543 4110	FM COIL 4.5MM X 21/2
L204	4543 4112	FM COIL 5MM X 31/2T
L205	4543 4105	CHOKE COIL 120UH+/–3%
L206	4543 4107	AM COIL 62:22 L=40MM
L207	4543 4109	LW COIL 205:30
L208	4543 4106	CHOKE COIL 140UH
L301	4543 4108	FM COIL 3MM X 191/2T
L302	4543 4108	FM COIL 3MM X 191/2T
L501	4543 4113	AXIAL LEAD INDUCTOR
L502	4543 4113	AXIAL LEAD INDUCTOR
T101	4543 4099	REC.BIAS OSC BLK–900
T201	4543 4102	10MM IFT ORG 767–545
T202	4543 4101	10MM AM IFT YEL 900–
T501	4543 4104	7MM D/D OSC COIL OS–
Q101	3614 7617	9014C
Q102	3614 7617	9014C
Q103	3614 7617	9014C
Q104	3614 7617	9014C
Q105	3614 7743	8050C
Q107	3614 7617	9014C
Q108	3614 7617	9014C
Q109	3614 7617	9014C
Q110	3614 7617	9014C
Q111	3614 7617	9014C
Q112	3614 7617	9014C
Q201	3614 4495	9015C
Q202	3614 4495	9015C
Q203	3614 4495	9015C
Q204	3614 4495	9015C
Q205	3614 7617	9014C
Q206	3614 7617	9014C
Q207	3614 7744	9018G
Q210	3614 7617	9014C
Q305	3614 7618	9013H/G
Q306	3614 4495	9015C
Q307	3614 4495	9015C
Q308	3614 4609	2SD2012
Q501	3614 7617	9014C
Q502	3614 7617	9014C
Q503	3614 7617	9014C
Q504	3614 7744	9018G
SW101	4112 7603	PUSH SW 6P2T PS62D01
SW301	4112 7602	SLIDE SW 4P3T SS43D0
SW302	4112 7599	TACK SW 1P2T JTM–1105A
SW401–07	4112 7599	TACK SW 1P2T JTM–1105A
SW501–10	4112 7599	TACK SW 1P2T JTM–1105A
TC201–05	3412 9156	TRIMMER CAP 20PF 3 PIN
XTA501	4421 2276	CRYSTAL 75KHZ (CFV–2)
–	3681 1875	LCD DISPLAY HLC–8049
–	3111 9194	R. VR 16MM D.G. R161
–	3111 9195	R. VR 16MM S.G R1615
–	3681 1876	LCD DISPLAY TCM–256
–	4131 4343	RCA JACK RJ–1002–30B
–	4131 4344	RCA JACK RJ–1002–30R
–	4131 4345	3.5MM JK W/2P2T (TC3
–	4112 7601	SLIDE SW 2P2T SK22F1
–	4511 3542	X'EL–57 NC–SV1439TM
–	4317 0250	CONDENSER MIC KUCI72